BEFORE THE SOUTH CAROLINA PUBLIC SERVICE COMMISSION

DOCKET NO. 2020-125-E

In the Matter of:	)	
	)	**DIRECT TESTIMONY OF**
Application of Dominion Energy for	)	**KEVIN W. O'DONNELL, CFA**
South Carolina for Adjustment of Rates and	)	
Charges Applicable to Electric Service in	)	
North Carolina	)	

ON BEHALF OF THE

SOUTH CAROLINA ENERGY USERS COMMITTEE

November 10, 2020

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION, AND BUSINESS ADDRESS FOR THE RECORD.

A. My name is Kevin W. O'Donnell. I am President of Nova Energy Consultants, Inc. My business address is 1350 SE Maynard Rd., Suite 101, Cary, North Carolina 27511.

Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS PROCEEDING?

A. I am testifying on behalf of the South Carolina Energy Users Committee ("SCEUC"). A number of SCEUC members take retail electric service from the applicant, Dominion Energy South Carolina ("DESC" or "the Company"), and the outcome of this proceeding will have a direct bearing on these SCEUC members.

Q. DID YOU OR SOMEONE UNDER YOUR DIRECT SUPERVISION AND CONTROL PREPARE THIS TESTIMONY?

A. Yes.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND RELEVANT EMPLOYMENT EXPERIENCE.

A. I have a Bachelor of Science in Civil Engineering from North Carolina State University and a Master of Business Administration from the Florida State University. I earned the designation of Chartered Financial Analyst ("CFA") in 1988.

I have worked in utility regulation since September 1984, when I joined the Public Staff of the North Carolina Utilities Commission ("NCUC"). I left the NCUC Public Staff in 1991 and have worked continuously since then in utility consulting: first with Booth & Associates, Inc. as a financial analyst and then as Director of

Retail Rates for the North Carolina Electric Membership Corporation from 1994 to 1995, and since then as principal for my own consulting firm.

I have been admitted as an expert witness on rate of return, cost of capital, capital structure, cost of service, rate design, and other regulatory issues in general rate cases, fuel cost proceedings, and other proceedings before the following regulatory bodies: the South Carolina Public Service Commission; the North Carolina Utilities Commission; the Wisconsin Public Service Commission; the Maryland Public Service Commission; the Virginia State Corporation Commission; the Minnesota Public Service Commission; the New Jersey Board of Public Utilities; the Colorado Public Utilities Commission; the District of Columbia Public Service Commission; the Indiana Utility Regulatory Commission; and the Florida Public Service Commission.

In 1996, I testified before the U.S. House of Representatives' Committee on Commerce and Subcommittee on Energy and Power, concerning competition within the electric utility industry. Additional details regarding my education and work experience are set forth in Appendix A of this testimony.

II. PURPOSE OF TESTIMONY

Q. PLEASE DESCRIBE THE SCOPE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony in this proceeding is to present my findings and recommendations to the Commission as to the following issues:

- SCEUC supports a rate design based on coincident peak;
- The DESC industrial rates in South Carolina as compared to other southeastern states and the associated impact on the state's economy;
- the proposal of DESC to ignore the abandoned nuclear plant amortization in this case;

- DESC's request to substantially increase the embedded cost of debt relative to the rate cap approved in the merger order (Order No. 2018-804); and
- the T&D investments DESC is seeking to include in rate base in this case.

III. SUMMARY/RECOMMENDATIONS

Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS IN THIS CASE.

A. My findings are as follows:

- I support the rate design based on a coincident peak allocation methodology for generation investments;
- DESC industrial rates are harming South Carolina manufacturing and the South Carolina economy;
- the Company's proposal to ignore the abandoned nuclear plant amortization in this case should be disregarded and be recalculated based on the return on equity (ROE) recommendation from ORS Witness Woolridge in this case;
- DESC's request to substantially increase the embedded cost of debt in this case should be denied; and
- Any grid modernization costs should be excluded from rates in this rate case.

IV. DESC COST OF SERVICE STUDY

Q. DO YOU HAVE ANY COMMENTS IN REGARD TO DESC'S COST OF SERVICE STUDY?

A. Yes. South Carolina has a long-established precedence of allocating generation costs using the coincident peak (CP) methodology, which is a method whereby the generation assets are allocated based on the ratio of the customer class demand at the time of the summer peak. I support such cost allocation as it sends the proper pricing signal to large customers.

My specific support for pricing capacity (*i.e.,* generation) on-peak is based on the fact that capacity is built to meet peak demand. Evidence of this pricing signal can be seen in the competitive wholesale power markets where capacity is priced on peak demand and energy is based on variable costs. Allocating capacity based on a mix of demand and energy sends incorrect pricing signals to consumers and, as such, does not follow true cost-causation rules in utility rate design processes.

Q. PLEASE EXPLAIN YOUR POSITION REGARDING PRICING IN THE WHOLESALE POWER MARKETS.

A. To-date, I have completed approximately 30 wholesale power projects for municipal utilities and university utilities throughout the Carolinas. In the wholesale markets, fixed costs are always billed on demand and variable costs are billed on energy. Regulation should mimic markets. If one follows that concept, fixed costs, such as generation, should be allocated on peak and not on any mix of demand (capacity) and energy.

V. RATE HIKE IMPACTS TO MANUFACTURERS

Q. WHAT IS THE TOTAL RATE HIKE REQUESTED BY DOMINION ENERGY SOUTH CAROLINA IN THIS RATE CASE?

A. According to DESC application in this case, the Company is seeking a $178 million increase, which amounts to an overall increase of 7.75%[1] in this case. The specific customer class rate increases are seen in **Table 1** below.

[1] Application, p. 4

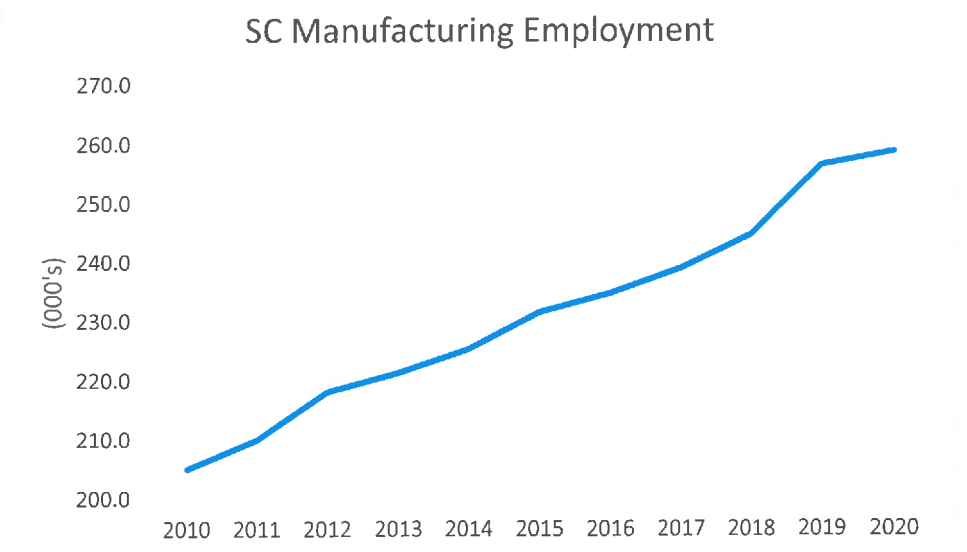
Table 1: DESC Proposed Customer Class Rate Increases

Customer Class	% Increase[2]
Residential	7.73%
Small Gen. Svc.	7.20%
Medium Gen. Svc.	8.17%
Large Gen. Svc.	8.68%
Lighting	3.13%
Overall	**7.75%**

Q. IS MANUFACTURING AN IMPORTANT COMPONENT OF THE SOUTH CAROLINA ECONOMY?

A. Yes, it is. Manufacturing has been a critical component of the South Carolina economy for many decades. **Chart 1** below shows the growth in South Carolina manufacturing over the past 10 years.

Chart 1: South Carolina Manufacturing Employment[3]



[2] Company Witness Rooks, p. 6

[3] https://www.bls.gov/regions/southeast/south_carolina.htm#eag

As shown above, from year-end 2010 through 2019, South Carolina manufacturing has added 48,600 jobs.

Below are facts about the importance of manufacturing within South Carolina:[4]

- The average salary for a manufacturing job in South Carolina is $71,123 and the average salary for other jobs in the state of South Carolina is $43,939;
- Approximately 12% of all South Carolinians are employed in manufacturing:
- There are more than 5,000 manufacturing businesses in South Carolina:
- Manufacturing accounts for 16.8% of the South Carolina's GSP ("Gross State Product") at $35.16 billion;
- In 2016, South Carolina manufacturers exported $30.7 billion in total goods;
- Nearly 48% of South Carolina goods go to neighboring NAFTA countries; and
- Almost 29.9% of all manufacturing jobs in South Carolina depend on exports for their jobs.

Q. HOW IMPORTANT ARE ENERGY COSTS TO LARGE MANUFACTURING OPERATIONS?

A. There are several risks associated with unnecessarily high electric costs for manufacturers. Manufacturers are in a constant battle to compete. The competition is international, domestic, and also amongst sister plants of the same manufacturer. If the cost to manufacture a particular product is less expensive in another state or country, the manufacturer has a duty to its customers and stockholders to move the manufacturing to the area of least cost. Sometimes the manufacturing losses result in permanent plant shutdowns and mass layoffs. Other times, the manufacturing losses result in line reductions such that the current plant temporarily ceases operation.

[4] https://myscma.com/sc-manufacturing-facts/

An example of a temporary shutdown is a South Carolina plant that produces an identical product as, for example, a sister plant in Georgia. Manufacturers planning their daily production schedules can look at prices on a day ahead hourly basis and compare those prices to the Georgia hourly prices. If RTP prices are too high in South Carolina, these plants don't operate. Instead, the manufacturer will allocate such production to its Georgia plant.

At times when the South Carolina hourly electric prices are higher than the Georgia prices, then the South Carolina plant will not operate a manufacturing line on those days. In such a case, the South Carolina utility loses a potential sale, but the loss is not reported in the press such as the reporting of a permanent plant closing. However, over time, the daily losses of load add up, and jobs are eventually lost.

Q. ARE YOU SAYING THAT ELECTRIC COSTS ARE THE ONLY REASON MANUFACTURERS CHOOSE TO LOCATE/OPERATE IN A PARTICULAR STATE?

A. No. Manufacturers locate and operate in certain areas for a myriad of reasons. The cost of electricity is one concern for manufacturers, but that concern is magnified when the rates in the state being considered for development are higher than competing states. Energy intensive industries such as steel, air products, auto manufacturers, and paper companies are particularly sensitive to cost imbalances in the electric industry.

Q. HOW DO DESC COSTS IN SOUTH CAROLINA COMPARE TO INDUSTRIAL COSTS IN OTHER SOUTHEASTERN STATES?

A. DESC industrial rates are the highest in the southeast. **Table 2** below shows DESC average industrial costs relative to average large investor-owned utility costs for industrial consumers in North Carolinas, South Carolina, Alabama, Florida, Georgia, Mississippi, and Virginia.

Table 2: IOU Costs for Mfg. Svs in SE

Utility	(cents/kWh)[5]
Alabama Power	6.29
Georgia Power	5.89
DEC NC	5.81
DEP NC	6.60
DEC SC	5.65
DEP SC	6.21
DESC	6.82
Florida Power	6.38
Mississippi Power	6.29
Entergy Mississippi	6.73
Virginia Power	6.45

As can be seen in this chart, at 6.82 cents per kWh, DESC has the highest average cost of any large investor-owned utility in the southeast. Now, with the current rate case, the price disparity between DESC and other southeastern utilities is poised to widen even further.

Q. HOW DO OTHER DESC'S RATES COMPARE TO SIMILAR UTILITIES IN THE SOUTHEAST?

A. DESC rates are high for commercial consumers as well as residential consumers.

Table 3 below shows that DESC's commercial rates are, like their industrial rates, high in comparison to other utilities in the southeast and discourage investment in South Carolina.

[5] Energy Information Administration accessed November 4, 2020.

Table 3: Commercial Costs in Southeastern US

Utility	(cents/kWh)[1]
Alabama Power	12.08
Georgia Power	9.65
DEC NC	7.73
DEP NC	9.31
DEC SC	9.83
DEP SC	12.07
DESC	11.03
Florida Power	8.72
Mississippi Power	10.72
Entergy Mississippi	9.52
Virginia Power	7.94

[1] Energy Information Administration accessed November 4, 2020.

Similarly, Table 4 below shows that, like its industrial costs, DESC's residential electric costs are the highest in the southeastern United States.

Table 4: Residential Electric Costs in Southeastern US

Utility	(cents/kWh)[1]
Alabama Power	13.41
Georgia Power	12.10
DEC NC	10.36
DEP NC	11.83
DEC SC	11.48
DEP SC	12.34
DESC	14.31
Florida Power	11.03
Mississippi Power	13.40
Entergy Mississippi	9.93
Virginia Power	12.06

No matter how one examines the issue of costs, DESC is a high cost utility. This rate filing will only add pain to already burdened customers in the DESC service territory.

Q WHY SHOULD THIS COMMISSION BE CONCERNED ABOUT DESC'S ELECTRIC COSTS FOR BUSINESS CUSTOMERS?

A. The southeast is, particularly, competitive for plant expansions and job creation.

The situation involving the failed VC Summer Nuclear Plant is no secret to economic developers, nor is the fact that the DESC rates are high relative to other southeastern states. Unfortunately, the message does not seem to have resonated with DESC as evidenced by the fact of the present rate case. DESC should recognize that South Carolina ratepayers need rate relief.

Even though Order 2018-804 gave DESC ratepayers relief from 10 years of annual rate cases, DESC's requested rate increase in this case will harm the business community in South Carolina as well as the State's economy. If South Carolina businesses tire of the constant drumbeat of price increases, they will leave South Carolina and the DESC fixed costs those customers were absorbing will be passed onto those customers, such as the residential customers who cannot leave the state.

Q. WHY MUST THE FIXED COSTS FROM BUSINESS CONSUMERS BE ABSORBED BY RESIDENTIAL CONSUMERS IF BUSINESSES LEAVE SOUTH CAROLINA?

A. The provision of utility service in South Carolina is that of a vertically integrated monopoly where competition is not permitted. If a customer leaves DESC, the fixed costs of that customer will be spread to all remaining customers.

Q. IS ANY PART OF THE SOUTH CAROLINA ELECTRIC MARKET CURRENTLY DEREGULATED?

A. Yes. Wholesale (*i.e.,* sales for resale) electric sales were deregulated through the Energy Policy Act (EPACT) of 1992. Since that time, wholesale competition has existed in some form in South Carolina. The competition has not been vibrant, but recent activities have shown that it is picking up in the state. As an example, Carolina Power Partners ("CPP") recently opened a plant in Kings Mountain, NC that serves many municipal and university electric systems in both South Carolina and North Carolina.

Southern Power, a division of the Southern Company, also owns several unregulated generating facilities located throughout the southeast. For instance, Southern Co. serves a very large electric cooperative located in Duke's service territory in North Carolina.

Q. ARE YOU RECOMMENDING THIS COMMISSION MOVE TO DEREGULATE THE ELECTRIC UTILITY INDUSTRY IN SOUTH CAROLINA?

A. No. I realize the current proceeding is not a referendum on deregulation. However, as noted in Tables 2 and 3 above, DESC's costs are amongst the highest in the southeast and, yet, the Company is seeking to raise rates even further in this case. Under the current regulatory model, DESC is not incentivized to lower costs. It is, instead, incentivized to grow earnings by investing in large amounts of plant and equipment and by raising rates to consumers to pay for the plant and an associated return. To be blunt, if DESC was concerned about its job base in South Carolina, it would have found ways to grow its earnings through O&M cutbacks for example, rather than invest $2.1 billion in transmission and distribution plant. Such a massive investment coming right on the heels of its failed nuclear plants shows an insensitivity on the behalf of Dominion, particularly in light of the current Covid-

19 pandemic where manufacturers are struggling to keep doors open and individual South Carolinians are dealing with high unemployment.

DESC's rates are high and put heavy strain on manufacturers located in South Carolina. As manufacturing leaves South Carolina because of high costs, residential and commercial consumers will see continuing and ongoing permanent rate hikes.

VI. NUCLEAR COST AMORTIZATION

Q. IS THE NUCLEAR COST RECOVERY AMORTIZATION ESTABLISHED IN THE DOMINION/SCANA MERGER CASE A PART OF THE CURRENT RATE CASE REVIEW?

A. Yes. The Company's application in the current case attempts to add more costs to consumers due to the failed Summer nuclear plant. Moreover, there is nothing in Order No. 2018-804 that precludes the review of the nuclear cost recovery rider, formally known as the Capital Cost Rider.

Q. WHAT IS THE CAPITAL COST RECOVERY RIDER?

A. The Capital Cost Recovery Rider (CCR) compensates DESC for the abandoned nuclear costs that are not used and useful but were authorized for recovery by the former Commission.

Q. PLEASE EXPLAIN HOW THE COMPANY'S APPLICATION IN THIS CASE RE-OPENS THE CAPITAL COST RIDER.

A. As the current Commission is fully aware, in 2018 Dominion Energy Corp. (Dominion) purchased SCANA Corp, the parent holding company of South Carolina Electric & Gas ("SCE&G") and Public Service of North Carolina ("PSNC"). As part of the merger order (Order No. 2018-804), the former Commission approved a Capital Cost Recovery Rider that allowed Dominion recover from customers an amount of $2.768 billion (net of the deferred taxes) in

abandoned nuclear costs amortized over 20 years.[6] The financial details that went into the calculation of the annual amortization amount was stated as follows:

> That cost of capital reflects a return on equity at 9.9% (compared to the current allowed return of 10.25%) and the cost of debt set at 5.56% (as recommended by ORS), which is lower than SCE&G's actual cost of debt of 5.58%. *Id.*; Tr. at 2022-12, 2022-17. The capital structure for this recovery would be fixed at the pre-impairment ratios of 52.81% equity and 47.19% debt, which is a further benefit to customers. Tr. at 4217-3.[7] (underline added)

On p. 103 of the merger order, the former Commission also established a cost cap for the cost of debt when it stated:

> To the extent any long-term debt issued by SCE&G following merger close is more expensive as a result of the merger than similar average long-term debt, the cost of such issuances shall be reduced to that average for purposes of calculating overall cost of debt in the first base rate proceeding following merger closing. This constitutes reasonable and adequate protection for SCE&G customers against any adverse impacts of the merger.[8]

Based on the above quotes from the merger order (2018-804), it is clear the Commission was concerned with the credit rating of SCANA and took measures it deemed would protect SCANA as well as South Carolina consumers.

In its discussion to accept the "Plan-B Levelized", the former Commission states as follows in Order 2018-804:

> The Commission finds that Plan–B Levelized provides significant customer bill relief for SCE&G's customers without damaging SCE&G's creditworthiness or putting at risk SCE&G's financial soundness or ability to continue providing reliable, cost-effective utility service to customers.

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[6] Order No. 2018-804, p. 58

[7] *Id.*

[8] Order No. 2018-804, p. 103

In 2018 in establishing a fixed capital structure made sense for the calculation of the abandoned nuclear cost amortization as debt to total capital is a primary concern for major credit rating agencies. However, ROEs are not a primary concern for credit rating agencies in so much that I have never seen a credit agency indicate that a utility needed to have its ROE set a specific level to maintain a specific credit rating. ROEs feed into other credit parameters, such as cash flow, but they are never seen as a stand-alone credit parameter. The former Commission chose not to set the ROE in the Capital Cost Rider that recovers the amortization of the abandoned nuclear costs but to, instead, allow the ROE to be reset in future cases.

Q. WHAT IS A CREDIT RATING AND WHY IS IT IMPORTANT TO UTILITIES SUCH AS DESC?

A. A credit rating is a measure of the credit quality of individual debt instruments or of a bond issuer's general creditworthiness. There are two major credit rating agencies in existence in the United States: Standard & Poors; and Moodys. The credit ratings of each can be seen in **Table 5** below.

Table 5: S&P and Moodys Ratings

Moody's Long term	S&P Long term
Aaa	AAA
Aa1	AA+
Aa2	AA
Aa3	AA–
A1	A+
A2	A
A3	A–
Baa1	BBB+
Baa2	BBB
Baa3	BBB–

As noted above, the higher the credit rating, with Aaa (Moodys) and/or AAA (S&P) being the highest, of a particular bond issuance or of the underlying company, the lower the risk of a credit impairment situation that may threaten the ability of the entity to pay its obligations in full and on-time. Similarly, the lower the credit rating, the higher the risk of such a credit impairment scenario.

Since credit ratings measure risk, which is directly related to the expected return, the higher the credit rating of an issuance, the lower the interest rate, otherwise known as the coupon rate, the issuer must pay to the investor. Hence, a downgrade by a credit agency will result in the issuer paying more for credit in the future as opposed to a credit upgrade that will result in the issuer paying less in interest costs in the future.

Q. WHY WAS THE FORMER COMMISSION CONCERNED WITH THE SCANA CREDIT RATING?

A. The former Commission's hyper-sensitivity to the SCANA credit rating and the fear of the lights being cut off was unfounded.

I submitted testimony in the merger case and noted that the discussion of SCANA declaring bankruptcy was premature. I also indicated within the merger testimony that SCANA had options available that it had not yet examined. Specifically, I noted that SCANA could have cut its dividend further, or it could have sold its gas utility, Public Service of North Carolina. The former Commission did not address these opportunities for SCANA to avert bankruptcy but, instead, chose to accept the "Plan-B Levelized" approach as its only alternative to SCANA declaring bankruptcy.

Q. IF SCANA HAD DECLARED BANKRUPTCY, WOULD SCE&G CEASED PROVIDING UTILITY SERVICE TO ITS UTILITY CUSTOMERS?

A. No. There is a long history of utility bankruptcies in this country that did not result in the cessation of utility service to customers.

As an example of a utility bankruptcy, one should refer to the bankruptcy for Pacific Gas and Electric Company ("PG&E") in 2019. This specific bankruptcy was the largest utility bankruptcy since 1991.[9] In a statement issued by PG&E in relation to this bankruptcy proceeding in 2019, PG&E noted that "*PG&E is not going out of business…We do not expect any impact to natural gas or electric service for our customers as a result of the Chapter 11 process.*"[10]

Additionally, when one examines the history of PG&E, you would find that PG&E has actually entered Chapter 11 bankruptcy before 2019 as well. See below for a selection from *theconversation.com* in relation to this previous bankruptcy of

9 https://www.foxbusiness.com/energy/pge-filed-for-bankruptcy-a-list-of-others-who-did-as-well

10 https://www.mercurynews.com/2019/01/14/pge-bankruptcy-qa-what-does-it-mean-for-me/#:~:text=%E2%80%9CPG%26E%20is%20not%20going%20out,power%20lines%20and%20pay%20employees.

PG&E and how PG&E maintained its service offerings to its customers during its previous bankruptcy proceeding:

> ***A. What about my lights?***
>
> *Despite all of these considerations, though, utility service to customers is not likely to be interrupted as long as the utility is able to maintain its cash flows.*
>
> *In fact, **PG&E itself has been bankrupt before**. The utility filed for bankruptcy in 2001 as a result of the **California power crisis**, and **emerged from this bankruptcy** in 2004. But throughout the process, PG&E maintained service to its customers. In fact, of all of the electric utility bankruptcies in the modern era, beginning with **Public Service Company of New Hampshire in 1988** (due to a dispute over cost recovery of the Seabrook nuclear plant), the lights in people's homes and businesses have not gone out due to financial pressures or changes in ownership.*
>
> *That's because the regulatory framework for electric utilities provides some protection for utilities and the manner in which their system interacts with the environment. They can only operate in a manner that the regulator approves, and are allowed the opportunity to recover their costs of providing service. But that protection only applies when the utility operates within the boundaries of those laws and rules.*[11]

A utility that enters bankruptcy will likely reorganize (*i.e.,* through the sale of assets, merger, acquisition, etc.) so that it can better relieve itself of certain debt obligations.

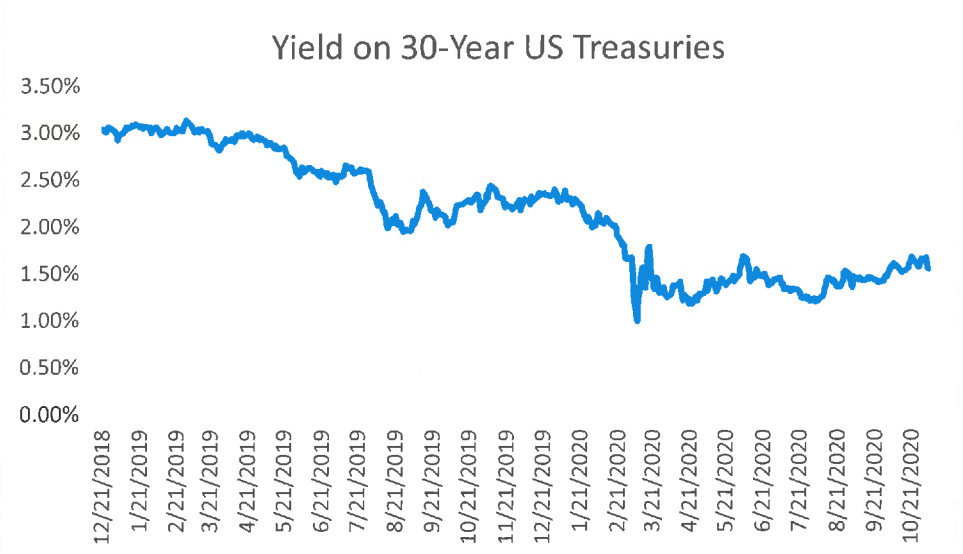
Q. WHY DO YOU BELIEVE IT IS IMPORTANT FOR THE CURRENT COMMISSION TO UNDERSTAND PAST UTILITY BANKRUPTCIES AND, SPECIFICALLY, THE DECISION OF THE FORMER COMMISSION IN LIGHT OF UTILITY BANKRUPTCIES ACROSS THE UNITED STATES?

[11] https://theconversation.com/many-electric-utilities-are-struggling-will-more-go-bankrupt-113458 (bold and underlined emphasis added)

A. As noted above, the former Commission fixed the capital structure ratio of the abandoned nuclear amortization but it did not fix the ROE and it capped the embedded cost of debt, allowing those rates to be changed in the future.

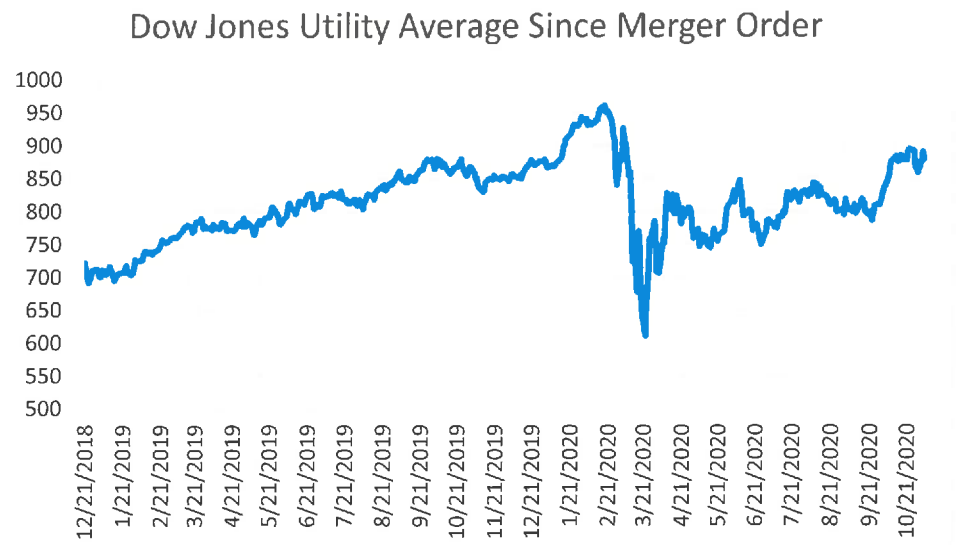
It is an indisputable fact that the cost of capital has fallen since the issuance of Order 2018-804. Below is a chart showing how the yield of 30-year US Treasury bonds has changed since Order 2018-804 was issued on December 21, 2018.

Chart 2: US Treasury Yields



In addition to lower interest rates, the utility stock market has increased substantially since the Dec. 21, 2018 merger order. **Chart 3** below shows the movement of the Dow Jones Utility Average from December 21, 2018 to present.

Chart 3: Dow Jones Utility Average



Given the lower cost of capital that exists in the markets today, my recommendation is the current Commission update the abandoned nuclear cost amortization to reflect the lower cost of capital that exists today as opposed to the market cost of capital that existed at the time of Order 2018-804, which was issued on December 21, 2018.

Q. HAVE YOU PERFORMED A COST OF CAPITAL ANALYSIS TO USE IN THE DERIVATION OF THE ABANDONED NUCLEAR COST AMORTIZATION FOR USE IN THIS PROCEEDING?

A. No, I have not. However, it is my understanding that the Office of Regulatory Staff (ORS) has retained the services of Dr. Randy Woolridge to assist it in the preparation of cost of capital testimony in this case. I am informed Dr. Wooldridge's recommended ROEs in the range of 7.6% to 8.9%. I know Dr. Wooldridge and have trust in his judgement as to the determination of the current cost of capital for DESC in this proceeding. My recommendation is that the Commission, for purposes of calculating the abandoned nuclear cost amortization,

rely on the recommendations of Dr. Woolridge for the allowable ROE to use in this proceeding. The updated ROE should be paired with the capital structure of 52.81% equity and 47.19% debt and the 5.56% cost of debt as determined appropriate in Order 2018-804 to determine the overall weighted cost of capital for use in calculating the abandoned nuclear plant amortization established for this rate case.

Q. DO YOU HAVE AN ESTIMATE OF THE IMPACT OF YOUR RECOMMENDATION BASED ON VARIOUS ASSUMED ROES?

A. Yes, I estimate that without adjusting the ROE of these abandoned nuclear assets, Dominion will see a windfall as much as a $36 million recovery of these assets that are not used and useful. In **Table 6** below, I have provided an estimate of the change in the amortization cost currently being paid by consumers in South Carolina if the Commission accepts the recommendation of ORS Witness Woolridge and to lower the abandoned nuclear plant amortization.

Table 6: Change in Abandoned Nuclear Plant Amortization due to Change in ROE

ROE	Change in Amortization
	($000's)
7.50%	$36,420
7.75%	$32,710
8.00%	$28,980
8.25%	$25,230
8.50%	$21,461
8.75%	$17,672
9.00%	$13,864

As I have shown above, the 9.9% ROE set in the December 2018 merger order is now grossly in excess of the actual investor return requirement for DESC. The former Commission never intended for DESC to earn a windfall on its abandoned nuclear assets. The above table calculates the excess profit that DESC is seeking from South Carolina ratepayers in this case stemming from the failed Summer nuclear plant.

VII. REQUESTED COST OF DEBT INCREASE

Q. IS THERE ANY COST INCREASE ASSOCIATED WITH THIS CASE THAT IS A DIRECT RESULT OF THE FAILED SUMMER NUCLEAR FIASCO AND THE SUBSEQUENT MERGER BETWEEN SCANA AND DOMINION ENERGY CORP?

A. Yes. DESC has requested a very large increase in the embedded cost of debt associated with its request in this case.

Q. ISN'T THE COST OF DEBT GENERALLY AN UNCONTESTED ISSUE IN RATE CASES?

A. Yes, but it is contested in this rate case.

Q. WHY DO YOU BELIEVE THE COST OF DEBT WILL BE A CONTESTED ISSUE IN THIS RATE CASE?

A. As noted above, the final order in the Dominion/SCANA merger case approved the requested cost of debt rate at 5.56%. However, the embedded cost of debt requested by DESC in the current rate case is 6.46%.[12] At first glance, the increase in the embedded cost of debt over a period of less than two years (Order 2018-804 was issued on Dec. 21, 2018), is stunning, particularly at a time of plummeting interest rates.

Q. WHY DID DESC's EMBEDDED COST OF DEBT INCREASE FROM 5.56% IN DECEMBER OF 2018 TO THE CURRENT RATE OF 6.46%?

A. When Dominion agreed to purchase SCANA, it made a commitment to infuse SCANA with equity in an attempt to maintain SCANA's credit ratings. Specifically, the agreement stated as follows:

[12] Application, Exhibit C-7, p. 1

> Dominion Energy commits to provide equity financing, as needed, to SCE&G with the intent of maintaining SCE&G's capital structure and to maintaining credit metrics that are supportive of strong investment-grade credit ratings for SCE&G.[13]

In the current proceeding, DESC Witness Griffin re-states the credit quality commitment from the merger case when she states:

> As part of the merger, Dominion Energy committed to providing equity financing, as needed, to DESC with the intent of maintaining DESC's capital structure and credit metrics at a level that is supportive of strong investment-grade credit ratings for DESC. In the merger approval order, Order No. 2018-804, the merger commitment specified that the equity percentage should be within the range of 50% to 55%.[14]

The need for Dominion to provide equity financing to SCANA was the result of SCANA taking a pre-tax impairment loss of $1.1 billion in 2017.[15] This impairment loss resulted in the equity component of the SCANA capital structure falling by $1.1 billion which, in turn, caused the debt-total capitalization ratio of SCANA to increase to levels where further credit rating downgrades were possible.

In recognition of the higher debt-to-total capitalization ratios, Dominion infused equity into SCANA and used the proceeds to make tender offers on $1.2 billion of SCANA's outstanding debt issuances, thereby reducing the debt ratio of SCANA. However, by purchasing these outstanding debt issuances, DESC incurred substantial losses in purchasing the debt as the Company was required to pay more for the outstanding debt than the par value for which the debt was recorded on its books. As a result, the Company is herein seeking to recover higher costs associated with the amortization of reacquired debt through an increase in its embedded debt rate in this case.

[13] Order No. 2018-804, p. 142, l. 12-17
[14] Prefiled direct testimony of DESC Witness Griffin, p. 3-4
[15] SCANA 2017 10-K, p. 33

Q. DO YOU AGREE WITH THE DESC'S REQUEST TO RECOVER THE COST OF THE REACQUIRED DEBT ASSOCIATED WITH ITS ACTIONS TO COMPLY WITH THE MERGER COMMITMENT?

A. No, as I have previously stated, the former Commission established a merger condition that prevented incremental dent costs being passed onto consumers in the current case. Specifically, the former Commission sought to protect consumers by, essentially, providing a cap on the embedded cost of debt equivalent to the debt costs that would have prevailed absent the merger. As noted in Chart 2 above, the cost of debt has plummeted since Order 2018-804 was issued. However, the embedded cost of DESC's debt has risen to account for the reacquisition of DESC outstanding debt.

Dominion was well aware of this merger condition. The former Commission's intent was to provide "*reasonable and adequate protection for SCE&G customers against any adverse impacts of the merger.*"[16] A 90-basis point increase in the cost of debt is a large adverse impact that should be absorbed by Dominion, not the DESC ratepayers.

Q. CAN YOU PROVIDE A CALCULATION FOR THE INCREASE IN THE COST OF DEBT ASSOCIATED WITH DESC'S APPLICATION IN THIS CASE?

A. Yes. DESC is attempting to burden its ratepayers with an additional $24.1 million. In **Table 7** below, I have provided the calculations showing the cost increase associated with the DESC increase in the cost of debt to be approximately $24.1 million.

[16] Order No. 2018-804, p. 104

Table 7: Calculation of Impact of Higher Cost of Debt Requested by DESC

	Requested Capitalization and Cost Rates				
	Cap Ratio	Embedded Cost Rate	Wgtd. Cost of Cap	Tax Gross Up Factor	Pre-Tax Wgtd COC
Long-Term Debt	46.65%	6.46%	3.01%	1.00	3.01%
Pref. Stock	0.00%	0.00%	0.00%	1.34	0.00%
Common Equity	53.35%	10.25%	5.47%	1.34	7.32%
	100.00%		8.48%		10.33%

	Requested Capitalization at Debt Cost Rates from Merger Order				
	Cap Ratio	Embedded Cost Rate	Wgtd. Cost of Cap	Tax Gross Up Factor	Pre-Tax Wgtd COC
Long-Term Debt	46.65%	5.56%	2.59%	1.00	2.59%
Pref. Stock	0.00%	0.00%	0.00%	1.34	0.00%
Common Equity	53.35%	10.25%	5.47%	1.34	7.32%
	100.00%		8.06%		9.91%

Difference in Pre-Tax COC	0.42%	
Rate Base	$5,748,651	($000's)
Cost Increase from Higher Cost of Debt	**$24,136**	**($000's)**

DESC must absorb the incremental cost increase associated with the reacquisition of its debt.

Q. HOW DO YOU RECOMMEND THE COMMISSION TREAT THE COST OF DEBT INCREASE SOUGHT BY DESC AS PART OF THIS CASE?

A. Since the former Commission sought to protect consumers in the merger order by not allowing incremental increases in debt costs associated with the merger, my recommendation is that the current Commission reject the DESC request and set the cost of debt at 5.56%.

VIII. DESC TRANSMISSION AND DISTRIBUTION INVESTMENTS

Q. DO YOU HAVE ANY CONCERNS WITH THE $2.1 BILLION IN TRANSMISSION AND DISTRIBUTION ASSETS THAT DESC IS SEEKING TO BRING INTO RATE BASE IN THE CURRENT CASE?

A. Yes. Like many other utilities across the United States, DESC is seeking to grow its earnings in the face of stagnant demand for its product/services to its monopoly customer base. One of the ways that utilities are seeking to grow earnings is through what they call "grid modernization" in which the utility places expensive assets in the field in the hope that customer outages are reduced.

Q. WHY DOES A UTILITY HAVE AN INCENTIVE TO CONSTRUCT PLANT AND INVEST IN GRID MODERNIZATION ASSETS?

A. Being a regulated utility with a captive set of customers, a utility is incentivized to build plants and put those plants in rate base where they can recover its full investment and earn a rate of return on that investment. In essence, a utility can drive earnings by constantly investing in plant and equipment. The "gatekeeper" in preventing a utility from over-investing to the detriment of ratepayers is the state regulator, which is tasked with weighing the interests of the utility (*i.e.*, DESC in this case) and captive consumers.

Q. PLEASE EXPLAIN HOW ENERGY CONSUMPTION TRENDS RELATE TO GRID MODERNIZATION EFFORTS.

A. As has been well-documented, electricity consumption is stagnant across the United States.[17] Utility sales growth around the United States is flat-to-barely

[17] *See e.g.*, *Most Utilities Executives Agree Risk of Consumers Going Largely Off-Grid Will Increase Significantly in Next Two Years, According to Research from Accenture*, BUSINESSWIRE (Feb. 5, 2019, 7:59 AM EST), https://www.businesswire.com/news/home/20190205005078/en/Utilities-Executives-Agree-Risk-Consumers-Largely-Off-Grid; Justin Fox, *Americans Keep Using Less Electricity*, BLOOMBERG OPINION (Mar. 1, 2018, 7:00 AM EST), https://www.bloomberg.com/opinion/articles/2018-03-01/americans-electricity-use-just-keeps-falling; Dave Flessner, *TVA Plots New Future With Stagnant or Declining Demand for Power*, CHATTANOOGA TIMES FREE PRESS (Feb. 11, 2018), https://www.timesfreepress.com/news/business/aroundregion/story/2018/feb/11/tvplots-new-future/463259/;

growing. In past years, a utility could meet its earnings goal by simply investing in generation plant. However, with flat load growth, there is less of a need for new generation resources. As a result, utilities are looking to other means to grow earnings to satisfy investors. One area in which utilities are looking to invest is in grid modernization plans, such as the plan DESC is proposing in this case.

On November 8, 2017, Bloomberg chronicled the growing calls around the country by utilities for "grid modernization" when it published an article entitled "No Sales Growth? No Problem! Utilities See Money in Grid Repairs." The article succinctly captures the grid "modernization/transformation" efforts in the following statement:

> Utilities make money by investing in wires, poles, substations and power plants and getting a guaranteed return by their regulators on those investments. But as demand for electricity has flat-lined for nearly a decade, companies are finding it harder to justify just building more stuff for growth. So now, they're talking about making the grids they do operate more efficient and flexible, which also happens to cost money.[18]

While these grid modernization plans *can* provide benefits to customers, they also provide utilities an opportunity to make a return on their investments.

Q. HOW IS THE TASK OF UTILITY REGULATION CHANGING WITH GRID MODERNIZATION EFFORTS PROPOSED BY UTILITIES?

A. Historically, a utility simply needed to build a plant and operate that plant to meet the requirements for inclusion in rate base and, therefore, rate recovery. Typically, utility regulators could easily predict and quantify the benefits and costs of the generation source. For example, if one knew the cost of a combined cycle gas plant,

[18] Mark Chediak, *No Sales Growth? No Problem! Utilities See Money in Grid Repairs*, BLOOMBERG, (Nov. 8, 2017, 4:21 PM EST, updated Nov. 8, 2017, 6:01 AM EST), https://www.bloomberg.com/news/articles/2017-11-07/-grid-mod-the-new-mantra-as-utilities-counter-stagnant-sales

the output capacity rating, the price of a natural gas delivered to the plant, and the heat rate of the plant, they would be able to calculate the all-in cost of the natural gas plant. Today, however, utility regulators are being asked to take a leap of faith in assuming that the promised benefits of grid modernization/transformation actually come to fruition. Utility regulators are being presented plans by utilities in which the utility is seeking to invest in relatively high-tech equipment with the hope/goal of reducing outages and saving consumers money. Unlike what occurred previously when there was little question as to the performance of new plant being brought into rate base, current grid modification plans are contingent upon improvements of reliability indices, such as SAIDI and SAIFI, as well as other measures.

Q. HAS DOMINION ATTEMPTED TO OBTAIN REGULATORY APPROVAL FOR GRID MODERNIZATION ASSETS IN OTHER STATES IN WHICH IT OPERATES?

A. Yes. On July 24, 2018, Dominion Energy Virginia (DEV) filed a request for approval for investments in the first three years of a 10-year grid investment plan. On January 17, 2019, the Virginia State Corporation Commission (SCC) issued a Final Order in this docket that approved DEV's request to invest in cyber and physical security assets, but it denied the Company's request in other matters. In the final order discussing its decision, the Commission stated:

> Dominion's proposed Plan is expensive, so it is important that Dominion's customers receive adequate benefit for the costs they will bear in their monthly bills. If the total Plan were approved, the cost to customers — the lifetime revenue requirement of these investments — will be approximately $6.0 billion, including financing costs, to be recovered from customers over the lives of the various components that range from five to 55 years. [19]

The SCC went on to approve part of the Grid Transformation Plan (GTP) and deny another portion of the GTP. Specifically, the Commission stated:

[19] Final Order in Case No. PUR-2018-00100

> After consideration of the entire record, we find that Dominion has proven that the costs of the elements in the Cyber and Physical Security category are reasonable and prudent and are approved, as well as some of the Telecommunications elements. We find that Dominion has not proven that the costs for the Plan elements in categories (ii), (iii), and (iv) are reasonable and prudent. These parts of the Plan are not approved. This disapproval is without prejudice and Dominion may re-file for approval of certain elements in a future proposed plan that complies with the requirements set forth below.
>
> In making these determinations, the Commission has followed all applicable statutory provisions. With regard to those elements that have not been approved, we agree with Consumer Counsel that as a general matter "the plan as filed is significantly lacking in detail with respect to the proposed investments." Also with regard to the Plan in general, we agree with Environmental Respondents Witness Golin who stated, "As a complete package, the [grid transformation] Plan is not cost-effective and will result in an economic loss for all customers," While we find the Plan elements related to Cyber and Physical Security are well-conceived, well supported and cost-effective, we find that the remaining Plan elements, which will cost customers hundreds of millions of dollars, are not.[20]

On September 30, 2019, DEV filed another petition with the SCC for more grid investment programs. On March 25, 2020, the Virginia State Corporation Commission approved part of the DEV request and rejected part of the request. Specifically, the Commission found the following:

> After consideration of the entire record, we find that Dominion has proven that the Phase IB costs of cyber security, stakeholder engagement and customer education, the customer information platform, the pilot programs and hosting capacity analysis, and certain components of grid hardening are reasonable and prudent, subject to certain requirements as discussed further below. We find that the Company has not proven the reasonableness and prudence of the plan or the costs associated with AMI, the self-healing grid and related investments, and certain components of grid hardening. These parts of the Plan are not approved. This disapproval is without prejudice to re-

[20] Id

> file for similar components in future proceedings. In total, through this Final Order, we approve additional incremental grid transformation-related costs of approximately $212 million9 and additional related costs involving cyber security, stakeholder engagement and customer education, and telecommunications.10 The approved components include both measures to facilitate integration of distributed energy resources ("DER") and measures to enhance physical electric distribution grid reliability and security, consistent with the statutory purpose of the GTSA.[21]

I was directly involved in the Dominion Grid Investment Plan filed by DEV on September 30, 2019 and submitted testimony in that case.

Q. WHAT IS YOUR CONCERN REGARDING GRID INVESTMENT IN THIS CASE?

A. In the current case, DESC is seeking to increase rate base by a gross amount of $2.1 billion for transmission and distribution (T&D) assets. SCEUC has served a data request to DESC asking if any of the $2.1 billion is grid investment assets. If any of these T&D assets are grid-related, the South Carolina public has a right to know if these assets are cost beneficial, as was the exact the requirement as presented to the Virginia State Corporation Commission.

Pending the response of DESC to SCEUC's data request, I reserve the right to testify later on the inclusion of the $2.1 billion of T&D investments sought by DESC in this case.

Q. IS DESC SEEKING TO RECOVER TRANSMISSION COSTS IN THIS RATE CASE THAT IS ASSOCIATED WITH THE ABANDONED NUCLEAR PLANT?

A. Yes. According to Exhibit C-1, p. 42 of the Company's Application in this case, on Dec. 31, 2019, DESC had $345 million in transmission costs that the Company claims has not been abandoned and $37 million in regulatory assets for deferred

[21] Final Order in Case No. PUR-2019-00154, p. 3

operating costs. DESC indicated these costs were in rates in the ongoing case when, in response to an interrogatory from the Office of Regulatory Staff (ORS), it stated:

> The Company is seeking a return on and of its capital investment, including AFUDC, related to these used and useful facilities. The net plant associated with this investment is being treated as a component of rate base and the Company is requesting recovery of its ongoing depreciation and property tax expense. [22]

IX. RECOMMENDATIONS

Q. PLEASE SUMMARIZE THE RESULTS OF YOUR ANALYSIS IN THIS CASE.

A. My recommendations in this case are as follows:

- I support the DESC rate design based on a coincident peak allocation methodology for generation investments;
- The Commission should re-calculate the abandoned nuclear plant amortization based on the ROE recommendation from ORS Witness Woolridge in this case;
- DESC's request to increase the embedded cost of debt relative to the rate approved in the merger order (Order No. 2018-804) should be denied; and
- the T&D investments DESC is seeking to include in this case raise questions concerning the economic viability of the plant investments to the extent they are grid modernization assets and I reserve the right to later testify on this matter.

Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?

A. Yes.

[22] DESC Response to ORS Interrogatory 5-70.

Appendix A

Kevin W. O'Donnell, CFA

Nova Energy Consultants, Inc. (Nova)

1350-101 SE Maynard Rd.
Cary, NC
919-461-0270
919-461-0570 (fax)
kodonnell@novaenergyconsultants.com

Kevin W. O'Donnell, is the founder of Nova Energy Consultants, Inc. in Cary, NC. Mr. O'Donnell's academic credentials include a B.S. in Civil Engineering - Construction Option from North Carolina State University as well as a MBA in Finance from Florida State University. Mr. O'Donnell is also a Chartered Financial Analyst (CFA).

Mr. O'Donnell has over thirty-four years of experience working in the electric, natural gas, and water/sewer industries. He is very active in municipal power projects and has assisted numerous southeastern U.S. municipalities cut their wholesale cost of power by as much as 67%. On Dec. 12, 1998, ***The Wilson Daily Times*** made the following statement about O'Donnell.

> **Although we were skeptical of O'Donnell's efforts at first, he has shown that he can deliver on promises to cut electrical rates.**

Mr. O'Donnell has completed close to 30 wholesale power projects for municipal and university-owned electric systems throughout North and South Carolina. In May of 1996 Mr. O'Donnell testified before the U.S. House of Representatives, Committee on Commerce, Subcommittee on Energy and Power regarding the restructuring of the electric utility industry.

Mr. O'Donnell has appeared as an expert witness in over 110 regulatory proceedings before the North Carolina Utilities Commission, the South Carolina Public Service Commission, the Virginia Corporation Commission, the Minnesota Public Service Commission, the New Jersey Board of Public Utilities, the Colorado Public Service Commission, the Wisconsin Public Service Commission, the Maryland Public Service Commission, the District of Columbia Public Service Commission, the Pennsylvania Public Utility Commission, the Indiana Public Utility Commission, the California Public Service Commission, and the Florida Public Service Commission. His area of expertise has included rate design, cost of service, rate of return, capital structure, asset valuation analyses, fuel adjustments, merger transactions, holding company applications, as well as numerous other accounting, financial, and utility rate-related issues.

Mr. O'Donnell is the author of the following two articles: "Aggregating Municipal Loads: The Future is Today" which was published in the Oct. 1, 1995 edition of *Public Utilities Fortnightly;* and "Worth the Wait, But Still at Risk" which was published in the May 1, 2000 edition of *Public Utilities Fortnightly.* Mr. O'Donnell is also the co-author of "Small Towns, Big Rate Cuts" which was published in the January, 1997 edition of *Energy Buyers Guide.* All of these articles discuss how rural electric systems can use the wholesale power markets to procure wholesale power supplies.

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
1985	Public Service Company of NC	NC	G-5, Sub 200	Public Staff of NCUC	Return on equity, capital structure
1985	Piedmont Natural Gas Company	NC	G-9, Sub 251	Public Staff of NCUC	Return on equity, capital structure
1986	General Telephone of the South	NC	P-19, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1987	Public Service Company of NC	NC	G-5, Sub 207	Public Staff of NCUC	Return on equity, capital structure
1988	Piedmont Natural Gas Company	NC	G-9, Sub 278	Public Staff of NCUC	Return on equity, capital structure
1989	Public Service Company of NC	NC	G-5, Sub 246	Public Staff of NCUC	Return on equity, capital structure
1990	North Carolina Power	NC	E-22, Sub 314	Public Staff of NCUC	Return on equity, capital structure
1991	Duke Energy	NC	E-7, Sub 487	Public Staff of NCUC	Return on equity, capital structure
1991	North Carolina Natural Gas	NC	G-21, Sub 306	Public Staff of NCUC	Natural gas expansion fund
1991	North Carolina Natural Gas	NC	G-21, Sub 307	Public Staff of NCUC	Natural gas expansion fund
1991	Penn & Southern Gas Company	NC	G-3, Sub 186	Public Staff of NCUC	Return on equity, capital structure
1995	North Carolina Natural Gas	NC	G-21, Sub 334	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1995	Carolina Power & Light Company	NC	E-2, Sub 680	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1995	Duke Power	NC	E-7, Sub 559	Carolina Utility Customers Assoc.	Fuel adjustment proceeding
1996	Piedmont Natural Gas Company	NC	G-9, Sub 378	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Piedmont Natural Gas Company	NC	G-9, Sub 382	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Public Service Company of NC	NC	G-5, Sub 356	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1996	Cardinal Extension Company	NC	G-39, Sub 0	Carolina Utility Customers Assoc.	Capital structure, cost of capital
1997	Public Service Company of NC	NC	G-5, Sub 327	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
1998	Public Service Company of NC	NC	G-5, Sub 386	Carolina Utility Customers Assoc.	Natural gas transporation rates
1999	Public Service Company of NC/SCANA Corp	NC	G-5, Sub 400	Carolina Utility Customers Assoc.	Merger case
1999	Public Service Company of NC/SCANA Corp	NC	G-43	Carolina Utility Customers Assoc.	Merger Case
1999	Carolina Power & Light Company	NC	E-2, Sub 753	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	G-21, Sub 387	Carolina Utility Customers Assoc.	Holding company application
1999	Carolina Power & Light Company	NC	P-708, Sub 5	Carolina Utility Customers Assoc.	Holding company application
2000	Piedmont Natural Gas Company	NC	G-9, Sub 428	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2000	NUI Corporation	NC	G-3, Sub 224	Carolina Utility Customers Assoc.	Holding company application
2000	NUI Corporation/Virginia Gas Company	NC	G-3, Sub 232	Carolina Utility Customers Assoc.	Merger application
2001	Duke Power	NC	E-7, Sub 685	Carolina Utility Customers Assoc.	Emission allowances and environmental compliance costs
2001	NUI Corporation	NC	G-3, Sub 235	Carolina Utility Customers Assoc.	Tariff change request.
2001	Carolina Power & Light Company/Progress I	NC	E-2, Sub 778	Carolina Utility Customers Assoc.	Asset transfer case
2001	Duke Power	NC	E-7, Sub 694	Carolina Utility Customers Assoc.	Restructuring application
2002	Piedmont Natural Gas Company	NC	G-9, Sub 461	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2002	Cardinal Pipeline Company	NC	G-39, Sub 4	Carolina Utility Customers Assoc.	Cost of capital, capital structure
2002	South Carolina Public Service Commission	SC	2002-63-G	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2003	Piedmont Natural Gas/North Carolina Natur	NC	G-9, Sub 470	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina Natur	NC	G-9, Sub 430	Carolina Utility Customers Assoc.	Merger application
2003	Piedmont Natural Gas/North Carolina Natur	NC	E-2, Sub 825	Carolina Utility Customers Assoc.	Merger application
2003	Carolina Power & Light Company	NC	E-2, Sub 833	Carolina Utility Customers Assoc.	Fuel case
2004	South Carolina Electric & Gas	SC	2004-178-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2005	Carolina Power & Light Company	NC	E-2, Sub 868	Carolina Utility Customers Assoc.	Fuel case
2005	Piedmont Natural Gas Company	NC	G-9, Sub 499	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2005	South Carolina Electric & Gas	SC	2005-2-E	South Carolina Energy Users Committee	Fuel application
2005	Carolina Power & Light Company	SC	2006-1-E	South Carolina Energy Users Committee	Fuel application
2006	IRP in North Carolina	NC	E-100, Sub 103	Carolina Utility Customers Assoc.	Submitted rebuttal testimony in investigation of IRP in NC.
2006	Piedmont Natural Gas Company	NC	G-9, Sub 519	Carolina Utility Customers Assoc.	Creditworthiness issue
2006	Public Service Company of NC	NC	G-5, Sub 481	Carolina Utility Customers Assoc.	Return on equity, capital structure, rate design, cost of service
2006	Duke Power	NC	E-7, 751	Carolina Utility Customers Assoc.	App to share net revenues from certain wholesale pwr trans
2006	South Carolina Electric & Gas	SC	2006-192-E	South Carolina Energy Users Committee	Fuel application

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
2007	Duke Power	NC	E-7, Sub 790	Carolina Utility Customers Assoc.	Application to construct generation
2007	South Carolina Electric & Gas	SC	2007-229-E	South Carolina Energy Users Committee	Rate of return, accounting, rate design, cost of service
2008	South Carolina Electric & Gas	SC	2008-196-E	South Carolina Energy Users Committee	Base load review act proceeding
2009	Western Carolina University	NC	E-35, Sub 37	Western Carolina University	Rate of return, accounting, rate design, cost of service
2009	Duke Power	NC	E-7, Sub 909	Carolina Utility Customers Assoc.	Cost of service, rate design, return on equity, capital structure
2009	South Carolina Electric & Gas	SC	2009-261-E	South Carolina Energy Users Committee	DSM/EE rate filing
2009	Duke Power	SC	2009-226-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2009	Tampa Electric	FL	080317-EI	Florida Retail Federation	Return on equity, capital structure
2010	Duke Power	SC	2010-3-E	South Carolina Energy Users Committee	Fuel application - assisted in settlement
2010	South Carolina Electric & Gas	SC	2009-489-E	South Carolina Energy Users Committee	Return on equity, capital structure, rate design, cost of service
2010	Virginia Power	VA	PUE-2010-00006	Mead Westvaco	Rate design
2011	Duke Energy	SC	2011-20-E	South Carolina Energy Users Committee	Nuclear construction financing
2011	Northern States Power	MN	E002/GR-10-971	Xcel Large Industrials	Return on equity, capital structure
2011	Virginia Power	VA	PUE-2011-0027	Mead Westvaco	Capital structure, revenue requirement
2011	Duke Energy	NC	E-7, Sub 989	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2011	Duke Energy	SC	2011-271-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2011	Dominion Virginia Power	VA	PUE-2011-00073	Mead Westvaco	Rate design
2012	Town of Smithfield/Partners Equity Group	NC	ES-160, Sub 0	Partners Equity Group	Rate design, asset valuation
2012	Florida Power & Light	FL	120015-EI	Florida Office of Public Counsel	Capital structure
2012	South Carolina Electric & Gas	SC	2012-218-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Progress Energy Carolinas	NC	E-2, Sub 1023	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2013	Duke Energy Carolinas	NC	E-7, Sub 1026	Carolina Utility Customers Assoc.	Rate design
2013	Jersey Central Power & Light	NJ	BPU ER12111052	Gerdau Ameristeel	Return on equity, capital structure
2013	Duke Energy Carolinas	SC	2013-59-E	South Carolina Energy Users Committee	Accounting, cost of service, rate design, ROE, capital structure
2013	Tampa Electric	FL	130040-EI	Florida Office of Public Counsel	Capital structure and financial integrity
2013	Piedmont Natural Gas	NC	G-9, Sub 631	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2014	Dominion Virginia Power	VA	PUE-2014-00033	Mead Westvaco	Recoverable fuel costs, hedging strategies
2014	Public Service Company of Colorado	CO	14AL-0660E	Colorado Healthcare Electric Coordinating Council	Return on equity, capital structure
2015	WEC Acquisition of Integrys	WI	9400-YO-100	Staff of Wisconsin Public Service Commission	Merger analysis
2015	Dominion Virginia Power	VA	PUE-2015-00027	Federal Executive Agencies	Return on equity
2015	South Carolina Electric & Gas	SC	2015-103-E	South Carolina Energy Users Committee	Return on equity
2015	Western Carolina University	NC	E-35, Sub 45	Western Carolina University	Accounting, cost of service, rate design, ROE, capital structure
2016	Sandpiper Energy	MD	9410	Maryland Office of People's Counsel	Return on equity, capital structure
2016	Washington Gas Light	DC	FC 1137	Washington, DC Office of People's Counsel	Return on equity, capital structure
2016	Florida Power & Light	FL	160021-EI	Florida Office of Public Counsel	Capital Structure
2016	Jersey Central Power & Light	NJ	EM15060733	NJ Division of Rate Counsel	Asset valuation
2016	Rockland Electric Company	NJ	ER16050428	NJ Division of Rate Counsel	Rate design
2016	Dominon NC Power	NC	E-22, Sub 532	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2017	Potomac Electric Power	DC	FC 1139	Healthcare Council of the National Capitol Area (HCNCA)	ROE and capital structure
2017	Columbia Gas of Maryland	MD	FC 9447	Maryland Office of People's Counsel	ROE and capital structure
2017	Washington Gas Light	DC	FC 1142	Washington, DC Office of People's Counsel	Merger analysis
2017	Duke Energy Progress	NC	E-2, Sub 1142	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Public Service Electric & Gas	NJ	GR17070776	NJ Division of Rate Counsel	ROE and capital structure
2018	Duke Energy Carolinas	NC	E-7, Sub 1146	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE, capital structure
2018	Elkton Gas/SJI	MD	FC 9475	Maryland Office of People's Counsel	Merger analysis
2018	Entergy Texas	TX	PUC 48371	Entergy Texas Cities	ROE
2018	Duke Energy Carolinas	SC	2018-3-E	South Carolina Energy Users Committee	Fuel case
2018	Elkton Gas Company	MD	FC 9488	Maryland Office of People's Counsel	Accounting, ROE, capital structure
2018	Baltimore Gas & Electric	MD	FC9484	Maryland Office of People's Counsel	ROE, capital structure

Regulatory Cases of Kevin W. O'Donnell, CFA
Nova Energy Consultants, Inc.

Year	Name of Applicant	State Jusrisdiction	Docket No.	Client/ Employer	Case Issues
2018	South Carolina Electric & Gas	SC	2017-370-E	South Carolina Energy Users Committee	Creditworthiness issue
2018	Jersey Central Power & Light	NJ	EO18070728	NJ Division of Rate Counsel	ROE and capital structure
2019	Duke Energy Carolinas	SC	2018-319-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Duke Energy Progress	SC	2018-318-E	South Carolina Energy Users Committee	Accounting, rate design
2019	Public Service Electric and Gas	NJ	EO18060629	NJ Division of Rate Counsel	ROE and capital structure
2019	Potomac Electric Power	MD	FC 9602	Maryland Office of People's Counsel	ROE, capital structure
2019	Oklahoma Gas and Electric	OK	PUD 201800140	Sierra Club	Creditworthiness issue
2019	Peoples Natural Gas	PA	R-2018-3006818	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2019	UGI Natural Gas	PA	R-2018-3006814	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2019	Dominion Virginia Power	VA	PUR-2019-00050	Federal Executive Agencies	Return on Equity
2019	Piedmont Natural Gas	NC	G-9, Sub 743	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2019	Pacific Gas & Electric, Southern California Edison, San Diego Gas & Electric	CA	A-1904014, et al	Federal Executive Agencies	ROE, capital structure
2019	Duke Energy Indiana	IN	Cause 45253	Federal Executive Agencies	ROE, capital structure
2020	Duke Energy Carolinas	NC	E-7 Sub 1219	Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2020	Duke Energy Progress	NC		Carolina Utility Customers Assoc.	Accounting, cost of service, rate design, ROE
2020	Dominion Virginia Power	VA	PUR-2019-00154	Southern Environmental Law Center	Financial analysis of plant investment
2020	Southwest Electric Power Company	LA	U-35324	Alliance for Affordable Energy	Financial analysis of plant investment
2020	Texas Gas Company	TX	PUC 10928	Texas Gas Cities	ROE, capital structure
2020	Potomac Electric Power	DC	FC 1156	District of Columbia Office of Peoples Counsel	ROE, capital structure
2020	UGI Gas	PA	R-2019-3015162	Pennsylvania Office of Consumer Advocate	ROE, capital structure, creditworthiness
2020	Columbia Gas of Maryland	MD	FC 9644	Maryland Office of People's Counsel	ROE, capital structure
2020	Columbia Gas of Pennsylvania	PA	R-2020-3018835	Pennsylvania Office of Consumer Advocate	ROE, capital structure
2020	New Mexico Gas Company	NM	19-00317-UT	Federal Executive Agencies	ROE, captial structure, accounting, rate design
2020	Washington Gas Light	DC	FC 1162	District of Columbia Office of Peoples Counsel	ROE, capital structure